

**CLAIMS PENDING AFTER AMENDMENT**

- 1                   48. A method of conferring resistance to pathogenic fungi on a plant  
2    using a DNA sequence encoding a member of the sarcotoxin 1 family or the cecropin  
3    family of antibacterial peptides from a Diptera insect, the method comprising the steps of:  
4    transforming a plant cell by introducing the DNA sequence encoding the member of the  
5    sarcotoxin 1 family or the cecropin family; and regenerating the transformed plant cell  
6    into a transgenic plant expressing the member of the sarcotoxin 1 family or the cecropin  
7    family, wherein the DNA encoding the member of the sarcotoxin 1 family or the cecropin  
8    family from a Diptera insect is in an expression vector, wherein said expression vector  
9    comprises:
- 10                   i) an expression cassette comprising a first plant promoter induced by  
11                   stress; and  
12                   ii) a second plant promoter which is constitutively expressed,  
13    wherein the first plant promoter and the second plant promoter are positioned adjacent to  
14    each other, and wherein the transgenic plant has enhanced resistance to pathogenic fungi  
15    as compared to a corresponding untransformed plant.
- 1                   49. The method according to claim 48, wherein the pathogenic fungi are  
2    *Rhizoctonia solani*, *Pythium aphanidermatum*, and *Phytophthora infestans*.
- 1                   50. The method according to claim 48, wherein the member of the  
2    sarcotoxin 1 family is sarcotoxin 1a.
- 1                   51. The method according to claim 48, wherein the member of the  
2    cecropin family is cecropin A.
- 1                   52. The method according to claim 48, wherein said expression vector  
2    comprises:

- 3                   i) the expression cassette comprising the DNA sequence encoding the  
4                   member of the sarcotoxin 1 family or the cecropin family operably linked  
5                   to the first plant promoter; and  
6                   ii) a drug resistance gene operably linked to the second plant promoter.

1                   53. The method according to claim 48, wherein the DNA sequence  
2                   encoding the member of the sarcotoxin 1 family or the cecropin family is operably linked  
3                   to a plant gene via the hinge region of a tobacco chitinase gene.

1                   54. The method according to claim 48, wherein the DNA sequence  
2                   encoding the member of the sarcotoxin 1 family or the cecropin family is operably linked  
3                   to a signal sequence from a plant gene.

1                   55. The method according to claim 48, wherein the promoter induced by  
2                   stress is the promoter of the tobacco PR-1a gene.

1                   56. The method according to claim 52, wherein the expression cassette  
2                   further comprises the terminator of the tobacco PR-1a gene operably linked downstream  
3                   of the DNA sequence encoding the member of the sarcotoxin 1 family or the cecropin  
4                   family.

1                   57. The method according to claim 48, wherein the second plant promoter  
2                   is the cauliflower mosaic virus 35S promoter.

1                   58. A plant which confers resistance to pathogenic fungi, the plant  
2                   comprising an expression vector, wherein the expression vector comprises:  
3                   i) an expression cassette comprising a DNA sequence encoding a member  
4                   of the sarcotoxin 1 family or the cecropin family of antibacterial peptides  
5                   from a Diptera insect operably linked to a promoter induced by stress; and  
6                   ii) a drug resistance gene operably linked to a constitutively expressed  
7                   promoter,  
8                   wherein the promoter induced by stress and the constitutively expressed promoter are

9 positioned adjacent to each other, and wherein the transgenic plant has enhanced  
10 resistance to pathogenic fungi as compared to a corresponding untransformed plant.

1 59. The plant according to claim 58, wherein the pathogenic fungi are  
2 *Rhizoctonia solani*, *Pythium aphanidermatum*, and *Phytophthora infestans*.

1 60. The plant according to claim 58, wherein the member of the  
2 sarcotoxin 1 family is sarcotoxin 1a.

1 61. The plant according to claim 58, wherein the member of the cecropin  
2 family is cecropin A.

1 62. The plant according to claim 58, wherein the DNA sequence encoding  
2 the member of the sarcotoxin 1 family or the cecropin family is operably linked to a plant  
3 gene via the hinge region of a tobacco chitinase gene.

1 63. The plant according to claim 58, wherein the DNA sequence encoding  
2 the member of the sarcotoxin 1 family or the cecropin family is operably linked to a  
3 signal sequence from a plant gene.

1 64. The plant according to claim 58, wherein the promoter induced by  
2 stress is the promoter of the tobacco PR-1a gene.

1 65. The plant according to claim 58, wherein the expression cassette  
2 further comprises the terminator of the tobacco PR-1a gene operably linked downstream  
3 of the DNA sequence encoding the member of the sarcotoxin 1 family or the cecropin  
4 family.

1 66. The plant according to claim 58, wherein the constitutively expressed  
2 promoter is the cauliflower mosaic virus 35S promoter.

1 67. The plant according to claim 58, wherein the expression vector further  
2 comprises a T-DNA region and a drug resistance gene.